Statement Test – 7

1.) 'A' and 'B' together can do a work in 15 days and 'C' can do the same work in 25 days. If efficiency of 'A' is 50% more than the efficiency of 'B' then find the time taken by 'B' and 'C' to complete the whole work together.
A.12 days B.15 days C.18 days D.21 days E.None of these

2.) A shopkeeper mixes two varieties of wheat worth Rs 60 per kg and Rs 90 per kg respectively in the ratio c : d respectively. If the average cost of the mixture is Rs 68, then find the value of d : c.
(a) 11 : 4 (b) 4 : 11 (c) 4 : 13 (d) 7 : 13 (e) None of these

3.) Marked price of an item is Rs 580 more than its cost price and selling price is 40% of its marked price. If the shopkeeper earned a profit of 12.5% on selling the item, then find the amount of discount given on it.
(a) Rs 540 (b) Rs 660 (c) Rs 536 (d) Rs 480 (e) None of these

4.) The ratio of ages of husband and wife before 2 years was 4 : 3 and the ratio of their ages after 6 years will be 5 : 4. What will be the ratio of their ages after 2 years.
(a) 15 : 11 (b) 19 : 15 (c) 17 : 13 (d) 14 : 13 (e) None of these

5.) P started a business with Q such that the investment made by him was four times the investment made by Q and his period of investment is 6/5 times the period of investment of Q. If P received Rs 45000, what is the total profit?
(a) Rs 52250 (b) Rs 56250 (c) Rs 72000 (d) Rs 84000 (e) None of these

6.) There are three numbers X, Y and Z such the sum of X, Y and Z is 952. If the ratio between X and Y is 2 : 3 and the ratio between Y and Z is 5 : 3, then the value of Z is:
(a) 282 (b) 312 (c) 296 (d) 252 (e) None of these

7.) In a school only 30% of the boys and 20% of the girls like cricket. If the ratio of boys and girls in the school is 4 : 3, then find the percentage of students who do not like cricket.
(a) 74.28% (b) 71.42% (c) 68.25% (d) 75.60% (e) None

8.) In how many ways the letters of the word "MOBILE" can be arranged so that vowels are always together?
(a) 90 (b) 120 (c) 164 (d) 144 (e) None of these

9.) Sum of the cost price of 2 pens and 3 erasers is Rs 39. Sum of the cost price of 7 pens and 1 eraser is Rs 108. Find the ratio of cost price of 3 pens and 4 erasers.
(a) 4 : 17 (b) 15 : 4 (c) 12 : 7 (d) 7 : 6 (e) None of these

10.) Aman can complete a work in 40 days and Bimal can complete it in 100 days. They work along with Charan and take 20 days to complete it. Find the time taken by Charan alone to complete the work.
(a) 66(2/3) days (b) 60(1/3) days (c) 72(2/3) days (d) 75(1/3) days (e) None of these

11.) Vineeta's salary is 26% more than Pushpa's and 10% less than Radha's. If Pushpa's salary is half of Arun's, the ratio of Pushpa's salary to that of Radha is?
A. 3:2 B. 5:8 C. 5:7 D. 5:9 E. None of these

12.) In how many different ways can the letters of the word 'ORIGINAL' be arranged so that all the vowels come together?
A. 11650 B. 720 C. 1460 D. 1440 E. 860

13.) At present Vishal's age is four times that of Juhi. After eight years Vishal's age will be 2.5 times Juhi's. How many times will Vishal's age be in another eight years as compared to Juhi's age?
A. 2.5 times B. 2 times C. 3 times D. 1.5 times E. 0.5 times

14.) Gagan invests 15% of his monthly salary, ie ₹35,310 in Mutual Funds. Later he invests 18% of his monthly salary on pension. Also, he invests another 9% of his salary on insurance. What is the difference between the amount invested by Gagan and 8/9 of ₹89163?
A. ₹19612 B. ₹15278 C. ₹17258 D. ₹18768 E. None of these

15.) In a mixture of 81 litres, the ratio of milk to water is 5:4, If the ratio of milk to water is to be 1:2 the amount of water that should be added is?
A. 60 litres B. 54 litres C. 27 litres D. 81 litres E. None of these

16.) One-fourth of Nikhil's money is equal to one-sixth of Mohit's money. One-third of Mohit's money is equal to one-fifth of Sony's money. If they have ₹16,450, then what is 40% of Nikhil's money?
A. ₹1200 B. ₹1300 C. ₹1326 D. ₹1416 E. None of these

17.) 5% more is gained by selling a bag for ₹2040 than by selling it for ₹1850. Find the cost price of the bag.
A. ₹4800 B. ₹2400 C. ₹3680 D. ₹3500 E. ₹3800

18.) 'M' is 50% more efficient than 'N'. 'N' started the work alone and worked for 15 days and after that 'N' is replaced by 'M'. If the total work is completed in 45 days, find the time taken by 'M' to finish the same work alone?
A.45 days B.60 days C.40 days D.80 days E.None of these

19.) 4 years ago from now, the ratio of the ages of Anjana and Dheeraj was 3:5, respectively. 8 years hence from now, sum of their ages will be 72 years. What will be the age of Anjana after 3 years?
A.30 years B.25 years C.32 years D.35 years E.28 years

20.) In a company the ratio of number of males to females is 8:5. If 75% of males and 60% of females does not like tea, then find the difference between the number of males and females who like tea.
A.10 B.0 C.15 D.12 E.Cannot be determined

21.) 300 ml of mixture A contains milk and water in the ratio 11 : 9 respectively is mixed with 60 ml of mixture B containing milk and water in the ratio 8 : 7. Find the ratio of milk and water in the resulting mixture.
(a) 197 : 163 (b) 167 : 163 (c) 187 : 147 (d) 197 : 153 (e) None of these

22.) A motor boat, whose speed is 16 kmph in still water, goes 63 km downstream and comes back in 8 hours. In what time does the motor cover the distance of 72 km downstream?
A. 4.5 hours B. 3.5 hours C. 4 hours D. 4.25 hours E. 3.75 hours

23.) The average marks of 21 students is 29. When 10 more students marks are added, then the average marks of all the students increased by 3 marks . What is the average mark of the newly added students?
a.38.3 b.36.4 c.35.3 d.37.3 e.39.4

24.) A shopkeeper sold a bag on 30% discount and a drum on 15% discount. The total discount on the set of a bag and a drum is 25%.Find the ratio between the marked price of a bag and a drum?
a.3:4 b.4:5 c.1:1 d.2:1 e.3:4

25.) A bottle contains 25 litres liquid such that the ratio of milk and water is 3:2 respectively. What quantity of water is added so that the new ratio of milk and water becomes reverse of the previous one?
a.15 b.12.5 c.13.5 d.14.5 e.18

26.) Rajat selling 5 articles for two rupee and losses 12%. If he would sell 4 articles for two rupee, then the profit percentage is ?
a.10% b.12% c.14% d.16% e.18%

27.) A single card is chosen at random from a standard deck of 52 playing cards. What is the probability of choosing a card that is not a queen?
a.24/26 b.12/13 c.11/14 d.None of these e.More than one option

1. b
Solution
Let the total work be 75 units. (LCM of 15 and 25)
Efficiency of (A + B) = 75/15 = 5 units/day
Efficiency of 'C' = 75/25 = 3 units/day
Let the efficiency of 'B' be 'x' units/day.
Therefore, efficiency of 'A' = 1.5x units/day
x + 1.5x = 5
Or, 2.5x = 5
Or, x = 5/2.5 = 2
Therefore, efficiency of 'B' = 2 units/day
Time taken by 'B' and 'C' to do the same work = {75/(2 + 3)} = 15 days
Hence, option b.
2) b
(1) By applying alligation rule, we get the ratio of c : d = 11 : 4
Therefore, d : c = 4 : 11
3) a
(3) Ratio of CP: SP: MP = 16 : 18 : 45
29 units – Rs 580
27 units – Rs 540
4) e
(4) Ratio of ages before 2 years = 4 : 3
Ratio of ages after 6 years = 5 : 4
1 unit – 8 years
Husband's present age = 34 years
Wife's present age = 26 years
Husband's age after 2 years = 36 years
Wife's age after 2 years = 28 years
Required ratio = 18:14
5) e
(5) Ratio of profit = 24 : 5
24 units – Rs 45000
29 units – Rs 54375
6) d
(6) Ratio of X, Y and Z = 10, 15, 9
34 units – 952
1 unit – 28
9 units – 252
Y = 252
7) a
(7) Let total boys = 400
Total girls = 300
Boys who don't like cricket = 280
Girls who don't like cricket = 240
Required percent = 520/700 * 100% = 74.28%
8) d
(13) Required number of ways = 4!*3!
= 24 * 6 = 144
9) b
(15) 2P + 3E = 39
7P + E = 108
Solving both equations simultaneously, we get
P = Rs 15
E = Rs 3
Required ratio = 15 : 4
10) a
(17) Let total work be 600 units.
Aman's one-day work = 15 units
Bimal's one-day work = 6 units
Aman, Biman and Charan's one-day work (together) = 30
Charan's one-day work = 9 units
Required number of days = 600/9 = 200/3 = 66(2/3) days
11. C
3. Let Arun's salary be 100
Then,

A	P	V	R
100	50	63	70

Therefore , P = $\boldsymbol{A/2}$ = 50, V = P + P x $\boldsymbol{26/100}$ = 63
R x 90% = V = 63
R = $\boldsymbol{63/90}$ x 100 = 70 So, P : R= 5 : 7 ans.
12. D
7. Total no. of letters = 8
In which 4 (O, I, I and A) are vowels in which I occurs twice.
Now, 4 vowels are considered a single unit
Then, total no. of letters in the word = 4 + 1 = 5
Required no. of ways = 5! x $\boldsymbol{4!/2!}$
5 x 4 x 3 x 2 x 4 x 3 = 1440 ans.
13. B
9.

	Vishal	Juhi
	4x	x

After 8 years given that
4x + 8 = 2.5(x+8)
4x + 8 = 2.5x + 20
1.5x = 12
x = $\boldsymbol{12/1.5}$ = 8 years ans.
Required ans. = $\boldsymbol{32+16/8+16}$ = $\boldsymbol{48/24}$ = 2 times
14. A
10. 15% = 35310
42% = $\boldsymbol{35310/15}$ x 42 = 98868
Required difference = 98868 – $\boldsymbol{8/9}$ x 89163
= 98868 - 79256
= 19612 ans.
15. B
13. By alligation
Mixture Water
$\boldsymbol{5/9}$ 0
$\boldsymbol{1/3}$
$\boldsymbol{1/3}$ $\boldsymbol{2/9}$
Ratio of mixture to water = 3:2
Therefore 3x = 81
x = 27
So, 2x = 2 x 27 = 54 litres ans.
16. E

15. $N/4 = M/6$ and $M/3 = S/5$ or, $M/6 = S/10$
$N/4 = M/6 = S/10$ = K
N = 4K, M = 6K, S = 10K
N:M:S = 4 : 6 : 10 = 2: 3: 5
N = $16450/10$ x 2 = 3290
40% of N = 1316 ans.
17. E
17. 5% of CP = (2040 - 1850) = 190
CP = $190/5$ x 100 = 3800
Or direct formula = $100\ x\ difference\ in\ SP/\%\ difference\ in\ profit$
= $100\ x\ 190/5$ = 3800 ans.
18. c
Solution
Let the efficiency of 'N' = '2x' units/day
Efficiency of 'M' = '3x' units/day
Time taken by 'M' to complete the remaining work = 45 – 15 = 30 days
Total work = 15 × 2x + 30 × 3x = 120x units
Desired time = 120x/3x = 40 days
Hence, option c.
19. b
Solution
4 years ago, let the ages of Anjana and Dheeraj was '3x' years and '5x' years, respectively.
Present age of Anjana and Dheeraj will be (3x + 4) years and (5x + 4) years, respectively.
According to the question,
(3x + 4 + 8) + (5x + 4 + 8) = 72
Or, 8x + 24 = 72
Or, 8x = 48
Or, x = 6
Present age of Anjana = 3 × 6 + 4 = 22 years
Age of Anjana after 3 years = 22 + 3 = 25 years
Hence, option b.
20. b
Solution
Let the number of males and females in the company be '8x' and '5x', respectively.
Number of male who like tea = 8x × 0.25 = 2x
Number of female who like tea = 5x × 0.40 = 2x
Required difference = 2x – 2x = 0
Hence, option b.
21) a
In mixture A, milk = 165 litres
Water = 135 litres
In mixture B, milk = 32 litres
Water = 28 litres
Required ratio = 197 : 163
22. C
Let the speed of the current be x
Then, $(63/16 + x) + (63/16 - x) = 8$
$(1008 - 63x + 1008 + 63x)/(16-x)(16+x) = 8$
$8(256 - x^2) = 2016$
$256 - x^2 = 252$
$x^2 = 4$
x = 2 kmph
Required time = $(72/16 + 2)$ = 4 hrs ans.
23. (a)
Old=21*29=609
New=31*32=992
992-609
Average =383/10
24. (d)
Bag = 70x
Drum=85y
75x+75y=70x+85y
5x=10y
x/y=10/5
25. (b)
3x+2x=25
5x=25
X=5
M=15
W=10
(10+x/15)=3/2
20+2x=45
2x=25
26. (a)
SP for 5 article = 2
SP for 1 article= 2/5
Loss 12%
Cp of 1 article = (2/5 X 100) / 88 = 5/11
CP of 4 artuicles= 20/11
Gain % ={ (2- 20/11) x 100} / 20/11 = 10%
27. (e)
Queen = 4 card
Probability=1-(4/52)